IN THE CLAIMS

1. (original) Water spraying system, especially for the humidification of the intake air of a piston engine to reduce nitrogen oxide emissions, said system comprising at least one nozzle (9,10, 11,12, 13) for spraying an aque- ous liquid mist into the air intake duct (2) and means for conveying the liquid to be sprayed to the nozzle, characterized in that the system comprises means for accomplishing the injection of a spray of aqueous liquid mist to at least one point in the air intake duct (2) de- pending on the load and/or speed of rotation and/or temperature of the engine.

2. (original) Water spraying system according to claim 1, characterized in that the amount of aqueous liquid to be sprayed into the air intake duct (2) is distributed in the system to several nozzles (9,10, 11,12, 13).

3. (currently amended) Water spraying system according to claim 1 ~~or 2~~, characterized in that the amount of aqueous liquid to be sprayed is distributed in the air intake duct (2) over a larger area to achieve an optimal vaporization, preferably to points with a high temperature and/or air flow or to their vicinity.

4. (currently amended) Water spraying system according to ~~any one of claims 1-3~~ claim 1, characterized in that the number of nozzles (9,10, 11,12, 13) in the system is adapted according to the required amount of liquid to be sprayed.

5. (currently amended) System according to ~~any one of claims 1-4~~ claim 1, characterized in that the point of injection and/or direction of injection of the spray of liquid mist is adapted according to the required amount of aqueous liquid to be sprayed.

6. (currently amended) System according to ~~any one of claims 1-5~~ claim 1, characterized in that the system comprises nozzles (9,10,11,12, 13) having different properties, the number and/or type of nozzles spraying being varied according to the amount of liquid required.

7. (currently amended) System according to ~~any one of claims 1-6~~ claim 1, characterized in that the several nozzles (9-13) in the system are arranged on the same mounting frame (6,7).

8. (currently amended) System according to ~~any one of claims 1-7~~ claim 1, characterized in that the system comprises a regulating apparatus, by means of which the injection action of at least some of the nozzles (9-13) can be con-trolled.

9. (currently amended) System according to ~~any one of claims 1-8~~ claim 1, characterized in that the system comprises at least one valve element (13, 14), by means of which the liquid flow passage leading to one of the nozzles (9-13) is adjusted and/or opened/closed.

10. (currently amended) System according to ~~any one of claims 1-9~~ claim 1, characterized in that the system comprises a regulating system, by means of which the pressure in at least one supply pipe (17) leading to the nozzles is kept at least nearly constant or at a predetermined level independently of the output of the pump.

11. (currently amended) System according to ~~any one of claims 1-10~~ claim 1, characterized in that the system comprises an output regulating pump unit, by means of which the pressure is regulated by pressure control so that the pressure in at least one supply pipe (17) leading to a nozzle is constant.

12. (currently amended) System according to ~~any one of claims 1-10~~ claim 1, characterized in that the system comprises a control system comprising a constant- output pump and controlling the pressure by means of a valve system to maintain a constant pressure in at least one supply pipe leading to a nozzle.

13. (currently amended) System according to ~~any one of claims 1-12~~ claim 1, characterized in that the system further comprises a system for cleaning the nozzles and/or keeping the nozzles clean.

14. (currently amended) System according to ~~any one of claims 1-13~~ claim 1, characterized in that the pressure in the liquid supply piping is 10-300 bar.

15. (currently amended) System according to ~~any one of claims 1-14~~ claim 1, characterized in that the droplet size of the water mist is typically below 200 micrometers.

16. (currently amended) System according to ~~any one of claims 1-15~~ claim 1, characterized in that a second pressure medium, typically a gas, preferably air, is sup- plied to at least one nozzle.

17. (currently amended) Apparatus according to ~~any one of claims 1-16~~ claim 1, characterized in that the apparatus comprises means for controlling the temperature of the liquid to be injected.